

R:VW/TAD/hbh(amg)
04/19/01



PATENT APPLICATION
DOCKET NO.: 2079.1042-001

1614
#4
4/26/01
87

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED

APR 26 2001

Applicants: Gavin C. Hirst, Paul Rafferty, Kurt Ritter, David Calderwood, Helen Twigger,
Stephen St. Gallay

Application No.: 09/663,320 ✓

Group Art Unit: 1614

TECH CENTER 1600/2900

Filed: September 15, 2000 ✓

Examiner: Not Assigned

Title: KINASE INHIBITORS AS THERAPEUTIC AGENTS ✓

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Assistant Commissioner for Patents, Washington, D.C. 20231	
on 04/19/01	<i>Annie Demirel</i>
Date	Signature
<i>Annie Demirel</i>	
Typed or printed name of person signing certificate	

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

This Information Disclosure Statement is submitted:

- ☐ under 37 CFR 1.129(a), or
(First/Second submission after Final Rejection)
- ☒ under 37 CFR 1.97(b), or
(Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).
- ☐ under 37 CFR 1.97(c) together with either:
- ☐ a Statement under 37 CFR 1.97(e), as checked below, or
- ☐ a \$180.00 fee under 37 CFR 1.17(p), or
(After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97(d) together with:
- ☐ a Statement under 37 CFR 1.97(e), as checked below, and
- ☐ a \$180.00 fee under 37 CFR 1.17(p), or
(Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)
- ☐ under 37 CFR 1.97(i):
Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.
(Filed after payment of issue fee)

Statement Under 37 CFR 1.97(e)

- ☐ Each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement; or
- ☐ No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned, after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d) (Patent Term Adjustment)

Applies to original applications (other than design) filed on or after May 29, 2000

- ☐ Each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.
- ☒ Enclosed herewith is form PTO-1449:
 - ☒ Copies of the cited references are enclosed.
 - ☐ Copies of cited references are enclosed except those entered in prior application, U.S. Application No. [], to which priority under 35 U.S.C. 120 is claimed. [The earlier application contains copies of the cited references.]
 - ☒ The listed references were cited in the enclosed International Search Report in a counterpart foreign application. AM3 and AN3.
 - ☒ The listed reference was cited in the enclosed International Search Report in a commonly owned application. AO3.
- ☒ The "concise explanation" requirement (non-English references) for reference AO3, AQ2, and AL3 under 37 CFR 1.98(a)(3) is satisfied by:
 - ☐ the explanation provided on the attached sheet.
 - ☐ the explanation provided in the Specification.
 - ☒ submission of the enclosed International Search Report.
 - ☒ the enclosed English language abstract.

[X] Applicant requests that the following pending applications be considered:

Examiner's
Initials

____ U.S. Patent Application No. 09/399,083, by inventors David Calderwood, Lee Arnold, Hormoz Mazdiyasni, Gavin C. Hirst, Bojuan B. Deng, David N. Johnston, Paul Rafferty, Gerald B. Tometski, Helen L. Twigger and Rainer Munschauer, filed September 17, 1999, Docket No.: 2079.1020-002

____ U.S. Patent Application No. 09/381,036, by inventors David J. Calderwood, David N. Johnston, Paul Rafferty, Helen L. Twigger, Rainer Munschauer and Lee D. Arnold, filed September 15, 1999, Docket No.: 2079.1020-005

____ U.S. Patent Application No. 09/537,167, by inventors Gavin C. Hirst, David Calderwood, Rainer Munschauer, Lee D. Arnold, David N. Johnston and Paul Rafferty, filed March 29, 2000, Docket No.: 2079.1032-003

____ U.S. Patent Application No. 09/663,780, by inventors Gavin C. Hirst, Paul Rafferty, Kurt Ritter, David Calderwood, Neil Wishart, Lee D. Arnold and Michael M. Friedman, filed September 15, 2000, Docket No.: 2079.1040-001

____ U.S. Patent Application No. 09/815,310, by inventors Gavin C. Hirst, Paul Rafferty, Michael M. Friedman, Kurt Ritter and David Calderwood, filed March 22, 2001, Docket No.: 2079.1040-009

____ U.S. Patent Application No. 60/278,047, by inventors Gavin C. Hirst, Paul Rafferty, Neil Wishart, Lee D. Arnold, Kurt Ritter, David Calderwood and Michael M. Friedman, filed March 22, 2001, Docket No.: 2079.1040-010

Examiner

Date

[X] A copy of each above-cited application, including the current claims, is enclosed.

[] A copy of each above-cited application, including the current claims, is enclosed, except those entered in prior application, U.S. Application No. [], to which priority under 35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.

Method of payment:

- [] A check for the fee noted above is enclosed, or the fee has been included in the check with the accompanying Reply. A copy of this Statement is enclosed.
- [] Please charge Deposit Account 08-0380 in the amount of \$[]. A copy of this Statement is enclosed.
- [X] Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

By

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Dated: 4/19/01

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.
2079.1042-001APPLICATION NO.
09/663,320INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

April 18, 2001

(Use several sheets if necessary)

APPLICANT
Gavin C. Hirst, et al.FILING DATE
September 15, 2000GROUP
1614

U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
	AA	4,140,851	02/20/79	Townsend	536	24	
	AB	4,229,453	10/21/80	Roth et al.	424	251	
	AC	4,892,865	01/09/90	Townsend et al.	514	43	
	AD	4,927,830	05/22/90	Townsend et al.	514	258	
	AE	4,968,686	11/06/90	Townsend et al.	514	258	
	AF	4,996,206	02/26/91	Taylor et al.	514	258	
	AG	5,028,608	07/02/91	Taylor et al.	514	258	
	AH	5,248,775	09/28/93	Taylor et al.	544	280	
	AI	5,254,687	10/19/93	Taylor et al.	544	280	
	AJ	5,344,932	09/06/94	Taylor	544	280	
	AK	5,349,064	09/20/94	Akimoto et al.	544	280	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
	AL	WO 94/17803	18-AUG-94	PCT			
	AM	WO 96/10028	04-APR-96	PCT			
	AN	WO 96/31510	10-OCT-96	PCT			
	AO	WO 96/40686	19-DEC-96	PCT			
	AP	WO 96/40705	19-DEC-96	PCT			
	AQ	WO 96/40706	19-DEC-96	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	Hanke, J.H., et al., "Discovery of a Novel, Potent, and Src Family-selective Tyrosine Kinase Inhibitor," <i>J. Biol. Chem.</i> , 271 (2):695-701, (1996).
AS	Missbach, M., et al., "A Novel Inhibitor of the Tyrosine Kinase Src Suppresses Phosphorylation of Its Major Cellular Substrates and Reduces Bone Resorption In Vitro and in Rodent Models In Vivo," <i>Bone</i> , 24 (5): 437-449, (1999).
AT	Traxler, P.M., et al., "4-(Phenylamino)pyrrolopyrimidines: Potent and Selective, ATP Site Directed Inhibitors of the EGF-Receptor Protein Tyrosine Kinase," <i>J. Med. Chem.</i> , 39: 2285-2292, (1996).

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U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
	AA2	5,416,211	05/16/95	Barnett et al.	544	280	
	AB2	5,593,997	01/14/97	Dow et al.	514	258	
	AC2	5,594,121	01/14/97	Froehler et al.	536	23.5	
	AD2	5,612,482	03/18/97	Barnett et al.	544	280	
	AE2	5,639,257	06/17/97	Dow et al.	514	261	
	AF2	5,644,057	07/01/97	Yuan et al.	544	280	
	AG2	5,644,058	07/01/97	Barnett et al.	544	280	
	AH2	5,665,721	09/09/97	Bhagwat et al.	514	253	
	AI2	5,686,457	11/11/97	Traxler et al.	514	258	
	AJ2	5,721,356	02/24/98	Ugarkar et al.	536	27.2	
	AK2	5,726,302	03/10/98	Ugarkar et al.	536	27.13	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO
	AL2	WO 96/40707	19-DEC-96	PCT			
	AM2	WO 97/02266	23-JAN-97	PCT			
	AN2	WO 97/03069	30-JAN-97	PCT			
	AO2	WO 97/13771	17-APR-97	PCT			
	AP2	WO 97/28161	07-AUG-97	PCT			
	AQ2	WO 97/32879	12-SEP-97	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AU	Showalter, H.D.H., et al., "Synthesis and SAR for a series of 4-substituted 1H-pyrimido [4,5-b] and 5H-pyrimido [5,4-b]indoles as EGF receptor tyrosine kinase inhibitors," <i>Proceedings of the American Association for Cancer Research</i> , 37, March 1996, (abstract).
AV	Dave, C.G., et al., "Synthesis & Biological Activity of Pyrrolo[2,3-d]pyrimidines," <i>Indian J. Chem.</i> , 27B: 778-780, (1988).

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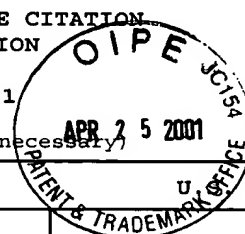
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EXAM- INER INI- TIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
	AA3	5,763,596	06/09/98	Boyer et al.	536	27.13	
	AB3	5,763,597	06/09/98	Ugarkar et al.	536	27.13	
	AC3	5,834,469	11/10/98	Elliott et al.	514	249	

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION YES NO	
	AL3	WO 97/34895	25-SEP-97	PCT				
	AM3	WO 98/41525	24-SEP-98	PCT				
	AN3	WO 00/44728	03-AUG-00	PCT				
	AO3	DE 30 36 390 A1	13-MAY-82	GERMANY				X
	AP3	EP 0 402 903 A1	19-DEC-90	EPO				
	AQ3	EP 0 496 617 A1	29-JUL-92	EPO				
	AL4	EP 0 795 556 A1	17-SEP-97	EPO				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

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